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(54) Title: TRANSGENIC PLANTS AND METHOD FOR TRANSFORMING CARNATIONS

(57) Abstract

A method of transforming a carnation (*Dianthus L.*) plant genome with a DNA molecule. The method comprises (a) preparing stem explants from carnation cuttings; (b) wounding the explants by microprojectile bombardment; (c) cocultivating the wounded explants with *Agrobacterium* comprising the DNA molecule under defined conditions of exposure to dark followed by light; (d) excising shoots from the cultivated wounded explants and removing the leaves from the shoots; and (e) culturing the leaves to obtain transgenic shoots transformed with the DNA molecule. Also disclosed are a *rolC*-transgenic carnation with improved agronomic traits and enhancement of flower fragrance by antisense suppression of the flavonoid gene *fln*.

